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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/626,078 | 07/24/2003 | Il-Du Jung | CU-3243 VE | 4535 |

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| EXAMINER |
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TILL, TERRENCE R

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| ART UNIT | PAPER NUMBER |
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1744

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/626,078 | JUNG ET AL. | |
| | Examiner | Art Unit | |
| | Terrence R. Till | 1744 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,6-10,12 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 2-6,11 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/03,7/04,9/04,11/04</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the abstract exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities: On page 14, line 1, "byun-hooking" should be --by unhooking--.

Appropriate correction is required.

Claim Objections

4. Claims 1 and 12 are objected to because of the following informalities: In claims 1 and 12, applicant recites "the exhaust port of the cyclone type dust collector". "The exhaust port" lacks antecedent basis. Appropriate correction is required.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application

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claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 10/620,736.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of the present application more broadly recite a rotating filter and a filter rotating unit. Claim 1 of the '736 application more specifically recites the filter rotating unit being an operation bar. Therefore, claim 1 of the present application fully encompasses the claimed subject matter of claims 1-8 of co-pending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1, 6-10, 12 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over EPO publication to Matsumoto et al. '395 in view of Fain.

11. Matsumoto et al. '395 disclose (figures 44-47) a cyclone-type dust collecting apparatus for a vacuum cleaner which is disposed in a dust collecting chamber connected with an air inlet path and an air discharge path of the cleaner for separating dusts and contaminants from air drawn in through a suction brush and then the air inlet path by a centrifugal force, the cyclone-dust collecting apparatus comprising: a cylindrical cyclone body 3 having an air inlet port 5a and exhaust port 10b respectively corresponding to the air inlet path and the air discharge path and fixed in an upper portion of the dust collecting chamber; a dirt-collecting receptacle 8 removably

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disposed in a lower side of the cyclone body for collecting dusts and contaminants separated in the cyclone body by a centrifugal force; a filter 11b assembly disposed in a lower part of the cyclone body and having a rotatable filter dusting member 190-193 rotated by air flow moving from the dirt-collecting receptacle to the air discharge port and preventing contaminants from flowing back. Matsumoto et al. also disclose a pipe member (see figure 44, member 10b) connected to a lower part of the cyclone body and formed to allow air to pass through a cover 20 connected to an upper end of the pipe member and having an air hole. Matsumoto et al. do not disclose the filter rotating and the dusting member remaining stationary. The patent to Fain discloses a rotation filter 14-16 rotated by air driving a turbine 17 and a shaft 11, supporting the rotation filter and rotatably connected to a cover 2 and a dusting member 20,21 for automatically removing dust on the rotation filter. Thus Fain shows that having the filter rotate and the dusting member be stationary is an equivalent structure known in the art. Therefore, because these two filter cleaner assemblies were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to modify the filter cleaner assembly of Matsumoto et al. to have a rotation filter rotated by air flow moving from the dirt-collecting receptacle to the air discharge port and a stationary dusting member for automatically removing dusts on the rotation filter. With respect to claims 6 and 17, Matsumoto et al., as modified by Fain, would have a rotation supporting portion disposed between the exhaust port and the rotary filter, for rotatably supporting the rotary filter as the filter 11b of Matsumoto et al. is connected to exhaust port 10b. With respect to claims 9 and 20, Matsumoto et al., as modified by Fain, would have the brush portion is formed on the rotation supporting portion as the arrangement of Matsumoto has both the brush and the filter connected to the exhaust port and, when modified to

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have the filter rotate and the brush remain fixed, both would still be mounted to the exhaust port, that would have the rotation supporting portion.

Allowable Subject Matter

12. Claims 2-5, 11 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

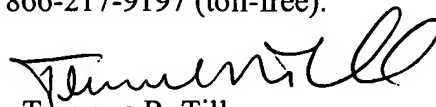
14. The publications to Jin et al. are applications have a common inventor with this application. The patents to Roy, Lagler, Bodovsky et al., Cartier et al., Hardy, Kroenlein, Daugherty, Orem, Van Berkel and Lee et al. show the current state of the art in filter cleaning apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Till whose telephone number is (571) 272-1280. The examiner can normally be reached on Mon. through Thurs. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sun U. Kim can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Terrence R. Till
Primary Examiner
Art Unit 1744

trt